NEUROLOGY
RESIDENT CURRICULUM

I. INTRODUCTION

The neurology rotation constitutes a 4-week block of clinical and instructional material, which will emphasize understanding of the basic anatomical, exam and pathophysiologic knowledge required for general practice. The rotation is open to internal and family medicine 2nd and 3rd year residents. There can be a maximum of two residents on per month/4 wk rotation. The residents are encouraged not to take greater than a one week leave during any given rotation. Exceptions to the above must be cleared with the Chief of Neurology.

II. OBJECTIVES

1. The resident rotator will be able to demonstrate complete neurological examination skills based on a firm understanding of cardinal anatomico-physiological principles.

2. The exposure to outpatient neurological problems will be emphasized to provide the resident rotator confidence in diagnostic and management skills.

3. The resident will be able to discuss the multiple treatment options with appropriate critique and recognition of controversy in the management of cerebrovascular diseases.

4. The rotator will be able to discuss the pathophysiology, differential diagnosis, and treatment of prevalent neurologic conditions.

5. The resident rotator will be able to formulate a rational and cost effective neurodiagnostic plan of evaluation based on an understanding of the usefulness and limitations of CT, MRI, LP, EEG/Evoked Potentials, and EMG.

III. METHODS

1. The understanding and performance of an accurate, reliable neurological exam is the principle skill that must be acquired. To assist this process the resident rotator will:

   a. Read chapter 1 pp. 3-9 in Principles of Neurology, by Victor and Adams.

   b. Perform at least three exams on different neurological patients under staff observation.

   c. As an additional basis for exam - clinical applications, the rotator will be able at the end of the rotation to describe the following clinical-anatomical correlation:

      (1) Upper versus lower motor neuron lesions.

      (2) The pathologic physiology of stupor and coma.

      (3) The sympathetic and parasympathetic pathways of pupillary innervation.

      (4) The cortical and brainstem pathways of extraocular motion.

      (5) The clinical correlation’s with variations of the lateral medullary infarct or Wallenberg Syndrome.

      (6) The anatomy of the VII cranial nerve as applied to Bell's Palsy.

(7) The clinical anatomy of spinal cord tracts as exemplified in the Brown Sequard Hemi-Cord Syndrome.

(8) The major clinico-anatomic correlation's of cortical versus subcortical stroke syndromes according to vascular distribution.

2. An understanding of the differences between and the subtypes of, ischemic or hemorrhagic strokes on clinical exam, epidemiological and pathophysiological grounds. The roles of controlling intracranial pressure, the controversy of anticoagulation Vs no anticoagulation, as well as medical and surgical therapies, and the use of diagnostic imaging will be emphasized.

3. The pathophysiology, differential diagnosis and treatment of prevalent neurologic conditions, and those emergency situations which the physician may encounter, including but not limited to the following:

a. Alterations in consciousness
b. Brain Death and vegetative states
c. Dementia, pseudodementia and confusion
d. Dizziness and vertigo
e. Epilepsy and seizure disorders
f. Headaches
g. Herpes zoster
h. Memory disorders
i. Meningitis
j. Mental retardation
k. Migraine
l. Movement disorders
m. Myasthenia gravis and polymyositis
n. Narcolepsy and other sleep disorders
o. Pain syndromes (e.g. low back pain, chronic pain)
p. Parkinson's disease
q. Peripheral neuropathies
r. Psychophysiologic disorders
s. Stroke
t. Subdural hematoma
u. Temporal arteritis
v. Transient ischemic attacks
w. Trigeminal neuralgia
x. Tumors
y. Weakness

4. To assist the resident in understanding the role of neurodiagnostics in clinical practice, they will attend as an observer at least one EMG Clinic during the rotation.

IV. **REQUIRED READINGS**

1. The Diagnosis of Stupor and Coma, 3rd Ed. pp. 1-86
(In Library or Neurology Clinic)

2. Headache, 2nd Ed, 1988 pp. 1-99, and 135-229

3. Articles and other directed reading according to current patient material.

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